

MAINTAINING VIABLE POPULATIONS OF
WILD HORSES IN THE
STINKINGWATER HERD MANAGEMENT AREA

ENVIRONMENTAL ASSESSMENT

EA-OR-025-00-14

BURNS DISTRICT OFFICE
BURNS, OREGON

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I. INTRODUCTION

The Three Rivers Resource Area of the Burns District proposes to remove excess wild horses from the Stinkingwater Herd Management Area (HMA). This area is located approximately 40 miles east of Burns, Oregon, in Harney County. Gatherings in this HMA have been taking place periodically for the past 20 years; the most recent in 1992. This Environmental Assessment (EA) will assess any new information that has surfaced regarding the resources in the HMA, changes in the condition of the herd, and changes in horse herd management.

A. Purpose and Need

Removal of excess wild horses in the Stinkingwater HMA has taken place periodically to achieve Appropriate Management Levels (AMLs) which not only maintains a thriving ecological balance between the horses and their environment but also a viable, vigorous, and stable population. Monitoring studies indicate that the increasing herd size is having a negative impact on herbaceous and shrubby vegetation in riparian areas especially Stinkingwater Creek, Warm Springs Creek, and Clear Creek and on the uplands in the Stinkingwater drainage. Monitoring data in the HMA (Appendix A) indicate increasing utilization. If horse numbers continue to increase, a downward trend in some of the plant communities is likely.

Year-round grazing by the herd at its current level is not allowing plants to complete their basic life cycle or replenish root reserves. Upland vegetation in areas the horses concentrate, primarily in the form of bunchgrasses, is grazed heavy to severe within the Crow Camp and Stinkingwater Pastures.

Wild horse numbers currently exceed the AML within the HMA and additional resource damage will occur if excess horses are not removed. The AML is 40 to 80 head. The 1997 census for the HMA counted a total of 74 horses. Historic observations and monitoring indicate that herd growth is generally 20 percent annually. The 1999 herd size is estimated to be at 107 head and the 2000 foal crop will increase the herd number to an estimated 128 animals.

The negative impacts to vegetative resources at and around watering areas, such as Stinkingwater Creek, Warm Springs Creek, Clear Creek, Company Springs, and Hawthorne Springs, are becoming increasingly evident, showing up as severe grazing and trampling around the open water. Seasonlong grazing by increasing numbers of wild horses on the native bunchgrasses is having an adverse effect on plant vigor and seed production and increases competition for forage with wildlife and cattle. Allowing horse numbers to increase indefinitely could jeopardize herd health, vigor, and viability.

Managing herd numbers within AML is necessary to be in conformance with the existing land use plan, the Stinkingwater Herd Management Area Plan (HMAP), and 43 CFR 4180.

Sage grouse, redband trout, and two plants, *Lupinus biddlei* and *Stanleya confertiflora*, were identified as sensitive species existing in the HMA in 1991. There has been no change in their status since then. Maintaining healthy uplands and riparian areas is important to both of these species.

B. Conformance with Land Use Plans

This action is in conformance with the 1971 Wild Horse and Burro Act (as amended) and Title 43 Code of Federal Regulations Part 4700 and the Three Rivers Resource Management Plan (RMP) (1992). The action is also in conformance with the objectives described in the Stinkingwater HMAP (1977). This EA also reanalyzed the Stinkingwater Wild Horse Gather EA (February 1991).

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The proposed action is to implement an integrated wild horse management program in the Stinkingwater HMA. Emphasis would be placed on achieving and maintaining wild horse AMLs through capture and release operations, collecting information on herd characteristics, conducting research, and determining herd and vegetative resource health. Capture and release operations would begin in the fall of 2000 or as soon as the project can be funded after this date and approximately every 3 to 5 years thereafter. Captures would be based on herd numbers and their impacts to the resources based on the criteria below. A helicopter census would be conducted prior to a scheduled capture to verify the estimated number of horses.

The captured horses would be examined and at least 40 head would be released back into the HMA. The remaining horses would be trucked to the Burns District Wild Horse Corrals for preparation and placement in the Bureau of Land Management's (BLM's) wild horse adoption program. Identifying horses for removal would be done using previously established "selective removal" policies. Selection would be based on critical population variables such as sex, historic characteristics, and genetic viability. Selective removal may also be used to correct unusual population variables, to maintain herd structure and composition, and to maintain long-term herd viability. Most horses removed would be less than 6 years old, but some older horses may be removed also.

Horses returned to the range would be representative of the herd's historical characteristics in color and size, and have desirable conformation. Diversity in age structure would be maintained, but most horses returned would be in the prime of their breeding age span and be from 6-9 years old. The sex ratio of the HMA would be maintained at about 50 percent males and 50 percent females. To enhance and maintain genetic diversity a few animals with compatible characteristics may be introduced occasionally from other HMAs.

The following criteria could trigger a capture of the horses:

Drought conditions that could cause mortality to horses due to the absence of water or where continued grazing by horses would cause plant mortality at a level that would cause malnutrition in the horses or a downward trend to the vegetative communities due to plant mortality and reduced vigor and productiveness.

Fires of a severity that remove forage to the extent there is inadequate forage to sustain the population or to allow recovery of native vegetation.

Utilization levels that reach a point where a continued increase would cause a downward trend in the plant communities and impede meeting standards for rangeland health. This level would be where utilization exceeds 50 percent (the combined total impact of horses, wildlife, and permitted livestock) based on an average year of precipitation and plant growth (on upland vegetation).

Monitoring indicates that horse use would begin to cause a downward trend in riparian function or not permit the recovery of riparian vegetation determined to be in undesirable condition.

Capturing would be conducted by experienced agency personnel or contractors. Horses would be herded into portable horse traps with a helicopter, sorted in the field and trucked to the Burns corrals. Established and proven capturing and transport practices would be used. Capturing would be conducted when soils are dry or frozen and conditions are optimal for the safety and protection of horses and wranglers and, when possible, outside the firearm hunting seasons for big game. Additionally, captures would not be conducted from February 15 through July 15 to avoid gathering late term mares, to reduce the chance of injury to pregnant mares or mares with young foals, and to reduce impacts on strutting and nesting sage grouse. Blood samples may be drawn from approximately 25 percent of the horses that would be returned to the HMA to establish a genetic baseline.

The trap would be a temporary facility, existing only for the time it is needed to complete the gathering operation. From start to finish, the operation would last about 1-week. Traps and any other gathering facilities would be located outside the Biscuitroot Area of Critical Environmental Concern (ACEC).

Any captured horses found to have the following conditions will be humanely destroyed and disposed of:

- a. Shows a hopeless prognosis for life.
- b. Suffers from a chronic disease.
- c. Requires continuous care for acute pain and suffering.
- d. Not capable of maintaining a body ratio of one.
- e. Is a danger to itself or others.

B. Alternative A

No Action: Horse numbers would be allowed to increase to higher numbers. No attempts would be made at this time to reduce the population to AML or to stabilize the current herd size. Wild horses would be allowed to regulate their numbers through predation, disease, forage, and water and space availability.

C. Alternatives Considered but not Developed

Fertility Control

There is new information regarding the use of immunocontraceptive vaccines to manage herd size; however, an alternative using this method was not developed.

This decision was based on concerns about the small herd size which could compromise viability and genetic diversity because any long-term benefits or negative impacts have not been fully assessed. Currently, the Food and Drug Administration has not formally approved any immunocontraceptives for management-based applications.

Alternative Gathering Methods

Hay and water trapping. This method requires that forage and water resources be scarce in order to attract the horses to specific locations. This method was not considered because it is not practical or an efficient method of capture due to the broken topography of this area.

Rounding up with saddle horses was not considered because experience has demonstrated this method to be inefficient and impractical.

Closure of Wild Horse HMA to Livestock

This alternative was not considered because the Wild and Free-Roaming Horse and Burro Act does not require that these areas be managed exclusively for wild horses. In addition the RMP provides for maintaining a horse herd population and providing for livestock grazing together.

Increasing or Decreasing AMLs within the HMA

Changing AMLs within the HMA is an RMP decision and is therefore outside the scope of this analysis.

D. Monitoring

Annual monitoring for utilization and use patterns would continue. Census work to verify horse numbers would be conducted periodically and prior to a capture.

III. AFFECTED ENVIRONMENT

A. Landform and Climate

The Stinkingwater HMA is about 40 air miles east of Burns, Oregon. The HMA covers approximately 79,631 acres of public land in the Stinkingwater Mountains, running south from Highway 20 to Buck Mountain. The topography is gently-rolling to steep hills and buttes with broad valleys.

The elevation ranges from 3,900 feet to 5,900 feet. Annual precipitation is primarily in the form of winter snow and spring rains, with the average being about 10 inches per year. Temperatures range from lows of about 0 to -10 °F in the winter to about 90 to 100 °F in the summer.

B. Wild Horses

The Stinkingwater herds have little to no Spanish Mustang characteristics. These horses are saddle type stock, but may display draft characteristics. Their ancestry is primarily horses abandoned by homesteaders and escaped or released horses from local ranches prior to 1971. The average adult horse weighs from 950 to 1,300 pounds, and the horses exhibit a wide range of colors with red and blue roan being common. Herd characteristics and range use patterns have changed little since 1991.

The Three Rivers RMP allocated 960 AUMs of forage to the HMA to support up to 80 horses while maintaining a thriving ecological balance. AML is 40 to 80 horses.

Horses in this HMA were last gathered in 1992. It is believed that some mortality occurred to the herd in the winter of 1993. Snowfall was at record levels and snow covered the ground for an exceptionally long period of time. It is believed that horse numbers may have gone below minimum numbers during this time. Therefore, it has taken a few additional years for the herd numbers to exceed the maximum AML which is the current situation (2000). Field observations during fall 1999 and spring 2000 determined that the horses are in a healthy condition.

C. Areas of Critical Environmental Concern

The Stinkingwater HMA overlaps a portion of the Biscuitroot Cultural ACEC. The primary management goal of the ACEC is to ensure the opportunity to continue the traditional practices of root gathering by contemporary American Indians.

D. Livestock Grazing

Livestock grazing is authorized in the HMA. The Stinkingwater HMA includes pastures from four allotments; Mountain, Stinkingwater, Miller Canyon, and Texaco Basin. The entire HMA area is grazed on a rotational system from approximately May 1 to September 30.

Past evaluations of the grazing allotments have concluded that the present allocation for horses, wildlife, and livestock are at the appropriate level when all the limiting factors are considered, such as water and forage availability.

E. Wildlife

Wildlife species common to the HMA include Rocky Mountain elk, mule deer, pronghorn antelope, coyote, bobcat, and jackrabbits. Many songbirds, reptiles, and small mammals also exist in the HMA.

F. Special Status Species

Sage grouse, Great Basin redband trout, *Lupinus biddlei* and *Stanleya confertiflora* are Special Status species existing in the HMA.

G. Vegetation

The vegetation in the HMA varies with the topography and soils. The primary shrub species found in the HMA are mountain big sagebrush, rabbitbrush, and low sagebrush. Grasses common to the HMA include bluebunch wheatgrass, squirreltail, Idaho fescue, needlegrass, cheatgrass, and Sandberg bluegrass. Juniper occurs throughout the area in varying densities. The HMA has one of the Resource Area's worst invasive nonnative weed infestations. Medusahead is the primary weed of concern and is steadily spreading.

H. Soils

The soils are generally shallow and rocky on the hills and ridges and shallow to moderately deep loams on the slopes.

I. Water Resources

The main riparian areas are found along Stinkingwater Creek, Warm Springs Creek, and Clear Creek. In addition to the creeks, riparian habitats can be found at the various spring sites. Willows and alders are the primary woody vegetation in the riparian zone.

Most riparian areas that are under a grazing rotation system are in fair to good condition and in an upward trend. Management adjustments are being undertaken for those areas in poor condition. Two riparian pastures have been established to reduce riparian impacts.

J. Recreation

Recreation pursuits within the HMA include horse viewing, hunting for deer and elk, as well as rockhounding and general sightseeing.

Most of the area is managed as Visual Resource Management (VRM) Class IV.

Currently, vehicle travel in the HMA is limited to existing roads and trails except for minimal administrative uses such as wild horse gathering and search and rescue operations.

K. Cultural and Historic Resources

The HMA contains a variety of cultural resources with the majority being prehistoric and lithic scatters. In addition, the Biscuitroot Cultural ACEC is within the HMA vicinity.

L. American Indian Religious Concerns

American Indian religious sites are known to occur within the Biscuitroot Cultural ACEC; however, they are not located within the HMA.

IV. ENVIRONMENTAL CONSEQUENCES

The following critical elements of the human environment either are not present or would not be impacted by the proposed action or the no action alternative: Threatened or endangered species, floodplains, air quality, prime or unique farmlands, Wild and Scenic Rivers, American Indian religious concerns, hazardous wastes, wilderness or Wilderness Study Areas.

A. Wild Horses

Proposed Action: Maintenance of a herd population of 40 to 80 head would balance competition for forage and water with livestock and wildlife in the HMA. Balancing animal numbers with the forage resource would protect and maintain the viability of the horse herds and would provide a thriving natural ecological balance on the rangelands involved. The selective removal of horses mostly less than 6 years old would provide the highest potential for successful adoption. Returned horses would maintain herd characteristics and animals in prime breeding age classes to ensure herd viability. The occasional introduction of animals from other HMAs would maintain genetic diversity.

Horses would experience stress and a small percentage may be injured during the capturing and transport to the corrals. Most injuries would be minor such as scrapes, bites, and bruises. A horse could be seriously injured or die. Twenty-five years of experience has shown this occurrence to be less than 1-percent of the horses captured. Experienced horse wranglers and standardized capturing procedures would minimize risks to both horses and wranglers. The horses' reaction to the stress brought on by the handling activities range from nervous agitation to physical distress. The intensity of these reactions would vary by individual animal.

Indirect individual impacts could include increased social displacement and conflict in studs and spontaneous abortions in mares. These impacts, like direct individual impacts, are known to occur intermittently during capture operations. Experience in spontaneous abortion events following capture is very rare.

Population-wide direct impacts may include displacement of bands during capture and the associated redispersal following release, the modification of herd demographics, the temporary separation of members of individual bands of horses, the reestablishment of bands following releases, and the removal of animals from the population.

There is potential for young foals to become separated from their mothers. Every effort would be made to reunite the foal with its mother.

Adopted horses would undergo a lifestyle change. They would no longer face the rigors of survival on a daily basis such as predators and searching for food and water and would lose their "wild and free-roaming" behaviors.

No Action: Increased numbers of horses would create greater competition for forage and water among themselves and between cattle and wildlife. Reduced forage resources may increase the chances for winter mortality, especially with deep snows and crusting. Unmanaged populations would eventually stabilize at high numbers as food and water become limiting due to the ecological carrying capacity and mortality increases from lack of forage and increased incidence of disease. Effects on the age distribution could not be predicted as different environmental events would affect different segments of the population disproportionately.

B. Livestock Grazing

Proposed Action: Removal of excess horses would reduce competition for forage with livestock.

No Action: Horses in excess of the AML consume more forage than they are allocated, thus lowering the available forage for livestock. This discrepancy would continually increase as the herd size increases.

C. Wildlife

Proposed Action: Wildlife would be temporarily disturbed or displaced during helicopter capture operations. Wildlife that depend on the riparian areas around the heavily used springs will benefit by the reduced number of horses due to improved habitat conditions.

No Action: Increases in horse numbers would eventually cause direct competition for forage with deer and elk on the winter range. Herbaceous plants, which are important to birds and small mammals for forage and habitat, would decrease causing hardship for those animal species.

D. Special Status Species

Proposed Action: The proposed action would have no negative impacts on any Special Status species.

No Action: If the horse herd population is permitted to continue to increase, over time the cumulative impact on the riparian zones and uplands could have a negative effect on redband trout that reside in the streams within the HMA. Horses trampling the streambanks and reducing riparian vegetation year-round would degrade the habitat through increased sediment loads in the streams and reduced cover.

In uplands year-round intensive grazing by excessive horse numbers could result in a loss of rearing habitat for sage grouse and increase the possibility of excessive trampling of Special Status plants.

E. Vegetation

Proposed Action: Short-term disturbance to vegetation would occur in small localized areas (less than 5 acres) as a result of setting up and utilizing the temporary horse traps. The vegetation would recover on the site within 1- 2 years.

Removing approximately 50 head of horses from the HMA would reduce the forage utilization levels and help improve the condition of vegetation in the HMA and meet the ecological process standard for rangeland health. Plant vigor, standing herbaceous cover, seed production, and litter would all increase. Riparian vegetation around the heavily used springs and streams would improve with reduced grazing and trampling.

There would be no measurable reduction in the rate of spread for medusahead.

No Action: Riparian and upland vegetation near reliable water sources would be reduced as a result of continuous seasonlong grazing by increased numbers of wild horses. Monitoring studies are presently showing decreased vigor in the forage species preferred by the wild horses. Utilization studies are presently showing heavy to severe grazing on the native, perennial grasses on flat to gentle slopes within 1-mile of reliable water sources during the critical growing period of spring and early summer. As the native bunchgrasses are removed by continuous, seasonlong grazing, the resulting open spaces could be colonized by invasive, nonnative weed species such as medusahead. Continued increases in horse numbers could result in the rangeland health standard of ecological processes not being met.

F. Soils

Proposed Action: Temporary, short-term disturbance and compaction would occur at the trap sites from vehicles and trampling by horses.

The return of vegetative vigor and accumulation of litter from decreased grazing pressure would provide better soil stability and enrichment from organic material. With fewer horses in the area, compaction of the soil from trampling would be reduced.

The proposed action would contribute toward meeting the rangeland standard of "maintaining watershed function in the uplands." Plant cover and organic matter would be maintained at levels where soils would be stable and not actively eroding.

No Action: As more vegetation is removed from the surface from heavy and severe grazing pressure, the soil would become more exposed to wind and water erosion. Trampling would affect more areas around watering sites by reducing water holding capacity and trails used by horses would become wider and deeper.

The rangeland standard of "maintaining watershed function in the uplands" may not be met due to poor soil conditions.

G. Water Resources

Proposed Action: The removal of excess horses from the HMA would reduce their presence at the springs, which would improve the water quality, water retention, and overall condition of the springs.

The proposed action would contribute to meeting the rangeland standard of "functioning riparian/wetland area." Point bars would continue to revegetate, banks would become more stable, and stream restoration processes would continue

No Action: An increase in horse numbers would increase their presence at the spring areas and riparian areas, resulting in poorer water quality and damage to the riparian vegetation.

Recovery of riparian/wetland areas may be jeopardized by the increased grazing and trampling, potentially causing the standard not to be met.

H. Recreation

Proposed Action: The opportunity for viewing horses by people who like to drive through the back country would be reduced for 1 to 3 years due to fewer horses.

Hunters in the area may be disturbed by the gathering operations.

No Action: No disruptions to recreational activities would occur. Increased numbers of horses would improve horse viewing in the HMAs. However, horse numbers that caused animals to be in a starved condition (ribs showing, low vigor, etc.) would be unacceptable to the public.

I. Cultural Resources

Proposed Action: No impacts to historic or prehistoric sites are anticipated. If historic or prehistoric sites are found within the area of effect, the impact caused by the proposed action would be mitigated through avoidance. Gathering facilities would be located in an area that contains no historical or prehistoric sites.

No Action: Trampling near water sources from excessive horse numbers may negatively impact archaeological sites.

V. CUMULATIVE IMPACTS

Proposed Action: There are no anticipated cumulative impacts associated with the proposed action.

No Action: Over time, if horse numbers were permitted to increase indefinitely in the HMA, permanent damage to the vegetation, riparian areas, and soil resources could occur. Other resources, such as wildlife, recreation, and livestock grazing would be indirectly affected by the cumulative impacts. They would be affected by reduced desirability of the site due to reduced forage and poor habitat conditions. The health of the wild horse herd would most likely suffer from reduced forage.

VI. CONSULTATION AND COORDINATION

A. Participating Staff

Bill Andersen, Range Management Specialist
Dean Bolstad, Wild Horse Management Specialist
Rudy Hefter, Supervisory Natural Resource Specialist
Jim King, Range Management Specialist
Fred Taylor, Wildlife Biologist
Nora Taylor, Botanist
Scott Thomas, Archaeologist

B. Persons, Groups, and Agencies that will be or have been Consulted

Oregon Department of Fish and Wildlife

USDI, Bureau of Land Management
Three Rivers Resource Area, Burns District
Hines, Oregon 97738

Finding of No Significant Impact
for
Maintaining Viable Populations of Wild Horses in the
Stinkingwater Herd Management Area Project
EA OR-025-00-14

Based on the analysis of potential environmental impacts contained in the Environmental Assessment (EA) and all other available information, I have determined that the proposal and alternatives analyzed do not constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an Environmental Impact Statement (EIS) is unnecessary and will not be prepared. This determination is based on the following factors:

1. Beneficial, adverse, direct, indirect, and cumulative environmental impacts discussed in the EA have been disclosed. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests, or the locality. The physical and biological effects are limited to the Burns District, Three Rivers Resource Area and adjacent land.
2. Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.
3. There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplains, areas with unique characteristics, ecologically critical areas or designated Areas of Critical Environmental Concern. There would be no adverse impacts from invasive, nonnative species.
4. There are no highly controversial effects on the environment.
5. There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.
6. This alternative does not set a precedent for other projects that may be implemented in the future to meet the goals and objectives of adopted Federal, State, or local natural resource-related plans, policies or programs.
7. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.

8. Based on previous and ongoing cultural resource surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice policy.
9. No adverse impacts to any threatened or endangered species or their habitat, that was determined to be critical under the Endangered Species Act, were identified.
10. This proposed action is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

Craig M. Hansen
Three Rivers Resource Area Field Manager

Date